DEQ Wind Energy Regulatory Advisory Panel (Wind RAP)
August 27, 2009 Meeting
Draft Meeting Notes

Location: **DEQ Central Office, 2nd Floor Conference Room**
629 E. Main Street, Richmond, VA 23219

Start: 9:32 a.m.
End: 4:28 p.m.

RAP Lead/Facilitator: Carol Wampler
Recorder: Melissa Porterfield

RAP Members Present:
Julie Langan, DHR
Bob Bisha, Dominion
John Daniel, Troutman Sanders
Roger Kirchen, DHR (alternate)
Ray Fernald, DGIF
James Golden, DEQ
Maria Papadakis, JMU (alternate)
Nikki Rovner, Deputy SNR
Judy Dunscomb, TNC
Larry Land, Virginia Assoc. of Counties
Ronald Jenkins, DOF
Larry Jackson, Appalachian Power
Stephen Versen, VDACS
Mary Elfner, Audubon
Tom Smith, DCR
Tony Watkinson, VMRC
Theo de Wolff, Seawind
Ken Jurman, DMME
Jayme Hill, Sierra Club-VA Chapter
Dan Holmes, Piedmont Env. Council

RAP Members Absent:
Jonathan Miles, JMU

Public Attendees:
Roger Chaffe, OAG
Ronald Jefferson, Appalachian Power (alternate)
Elizabeth Murphy- VMRC (alternate)
David Phemister, TNC (alternate)
John Davy, DCR (alternate)
Chris Hobson- DCR-DNH
Larry Nichols-VDACS (alternate)
Jim Madden, BP Wind Energy
Richard Reynolds, DGIF (alternate)
Wendy Tidhas- West, Inc.
Don Giecek- Invenergy (alternate)
Robert Hare- Dominion
Catherine Gilliam- NPCA
David Young, West, Inc.
Hank Seltzer, BP Wind Energy

Agenda Item: Introductions

Discussion Leader: Carol Wampler
Discussion: The RAP members and other attendees were welcomed and asked to introduce themselves and their affiliation. After the introductions, Carol recapped the challenges and goals for this RAP. Carol explained the group needs to take the task before them and make their best effort to do what is best for the commonwealth while following the requirements set forth in statute.

Agenda Item: Virginia Renewables Siting Scoring System

Discussion Leader: Maria Papadakis, JMU
Discussion: Maria Papadakis presented information on the Virginia Renewables Siting Scoring System. Maria Papadakis' presentation will be sent to all RAP members/alternates/interested parties for future reference. The scoring system discussed by Maria Papadakis is used for class 3 and larger sites.

Categories included in the scoring process include Land Use, Natural Resources, and Community Development. The scoring process uses GIS tools to assist with scoring sites. The Virginia Renewables Siting Scoring System is actually a suitability tool, not a siting tool.

Agenda Item: Announcements

Discussion Leader: Carol Wampler
Discussion: The RAP meeting scheduled for October 8, 2009 conflicts with an Energy Conference being held at VMI in Lexington, Va. Carol discussed with the group their preference concerning the October 8th meeting. Options discussed include holding the RAP meeting in Richmond or at VMI that day, or moving the RAP meeting to another date. The group decided to move the meeting to VMI, contingent upon RAP members and members of the public not being charged to attend the Wind RAP meeting, and the feasibility of logistics for DEQ and other agencies. Carol will follow-up with VMI to confirm that no fees will be associated with holding the RAP meeting at VMI and that VMI will be able to provide meeting space for the Wind RAP on October 8. Once these issues are resolved, the revised meeting location will be announced.

The Full committee will break into 3 subcommittees to conduct work related to their given topics. The subcommittees are to break and return to the full committee by 3 p.m.

The Wind RAP adjourned at 10:30 and subcommittee meetings began.

See Attachment A for the Living Resources Subcommittee Meeting Notes, Attachment B for the Landscape Subcommittee Meeting Notes, and Attachment C for the General Subcommittee Meeting Notes.

The Wind RAP meeting reconvened at 3:03 p.m.

Agenda Item: Communication from AG Office's Advice; Sample Discussion Model

Discussion Leader: Carol Wampler
Discussion: Carol led the group though an exercise of how they might discuss issues. The example issue that Carol discussed was public participation, since the OAG's office has stated that there is potentially some flexibility in conducting public participation for these projects. The statute states that a PBR should be developed for Wind projects and the only PBR DEQ has is for certain types of solid waste management facilities. If the subcommittee discusses issues, and the subcommittee believes that the process for the PBR for wind projects should differ from the solid waste PBR, then the subcommittee needs to provide justification as to why they are recommending a different process be used with their recommendation.

Agenda Item: Public Forum

Discussion Leader: Carol Wampler, DEQ
Discussion: No one had signed up to speak, so no public forum was held.

Agenda Item: Brief Reports by subcommittees to Plenary Group

Discussion Leader: Nikki Rovner- General, Maria Papadakis- Landscape, Bob Bisha – Living Resources,
Discussion: Each of the subcommittees reported on the work done in their meetings. See subcommittee meeting notes for details of the discussions.

General Subcommittee- The group discussed applicability issues, discussed length of coverage of the PBR, and changes to the PBR requirements in the future (likely due to change to regulation). The group will likely have some draft language drafted at the next meeting.

Landscape Subcommittee- The group completed an inventory of issues. The subcommittee's homework is to review permits and legal authorities applicable to Landscape issues and the Wind PBR. Erosion and sediment Control issues were resolved during the meeting today and will be addressing water issues at the next meeting.

Living Resources Subcommittee- Dave Young with West, Inc. presented information on Bird and Bat Mortality to the subcommittee. DGIF guidelines concerning significant adverse impact were provided top the group. The FWS draft guidelines were also provided to the group. The group discussed the scenario that all wind projects will likely have significant impacts to bats, discussed the possibility of including economic limits for mitigation, and what would be trigger mechanisms. The group also indicated that they needed addition time to discuss issues and would be setting 2 more meetings of the subcommittee in addition to those already scheduled.

Agenda Item: Offshore Issues

Discussion Leader: Tony Watkinson, VMRC
Discussion: VMRC will be forming an advisory group to review potential areas for offshore energy lease agreements. The RAP will be kept informed of meetings. If anyone is interested in serving on the advisory committee being formed by VMRC they should contact Tony Watkinson.

Agenda Item: Announcements- continued

Discussion Leader: Carol Wampler, DEQ
Discussion: There is a new policy being set for the distribution of materials. Any materials to be distributed at RAP meetings must be submitted to Carol 2 business days prior to the date the material is requested to be distributed. If you send information to Carol, please also confirm that she has received the information to be distributed. Please continue to send to Carol information that subcommittee chairmen or other RAP members want distributed in the interim between RAP meetings.

The next meeting will be held at the DEQ Piedmont Regional Office on September 17, 2009.

DEQ Wind Energy Regulatory Advisory Panel (Wind RAP)
Attachment A – Draft Notes for Living Resources Subcommittee
August 27, 2009 Meeting

Location: **DEQ Central Office, 2nd Floor Conference Room A**
629 E. Main Street, Richmond, VA 23219

Start: 10:50 a.m.
End: 2:55 p.m.

Subcommittee Chair: Judy Dunscomb, TNC
Recorder: Melissa Porterfield- DEQ

Subcommittee Members Present:
Tom Smith, DCR
Bob Bisha, Dominion
Ray Fernald, VDGIF

Subcommittee Members Absent: none

Guests/Speakers: David Young, West, Inc.

Public Attendees:
Rick Reynolds, VDGIF- alternate for Ray Fernald
Ronald Jefferson, Appalachian Power (alternate)
David Young, West, Inc.
Wendy Tidhas- West, Inc.
Robert Hare- Dominion
Catherine Gilliam- NPCA
Larry Nichols-DVACS (alternate)
Chris Hobson- DCR-DNH
Carol Wampler- DEQ
John Daniel, Troutman Sanders
Jim Madden, BP Wind
Larry Lombardi, City of Norfolk
John Anderson, BP Wind (by phone for part of meeting)

Agenda Item: Welcome and introductions
Discussion Leader: Judy Dunscomb
Discussion: Ms. Dunscomb began the meeting by reviewing the agenda, the meeting objectives, and ground rules for the meeting.

Agenda Item: Presentation on Wildlife Studies and results from David Young- West, Inc.
Discussion Leader: David Young
Discussion: Mr. Young provided an overview of three topics in his presentation-

- What we know and what we've learned about wildlife impacts
- Mitigation opportunities
- Approaches to monitoring for impacts

Mr. Young's presentation also provided the group with information on pre- and post construction studies, avian and bat mortality data, mitigation opportunities, as well as the concept of adaptive management.

Agenda Item: DGIF Wind Wildlife Recommendations
DGIF's guidance document concerning wind and wildlife issues had been distributed to subcommittee members the afternoon before the RAP meeting. Prior to discussion of DGIF's document, Ms. Wampler clarified that, regardless of the "mandatory" tone of the document's language, the RAP should consider the contents as DGIF's suggestions for the RAP's consideration, and not infer that DGIF was trying to set standards without consulting the RAP. She urged RAP members not to be put off by the document's tone, and to give due consideration to the substantive recommendations contained therein.

Discussion Leader: Ray Fernald
Discussion: Mr. Fernald informed the subcommittee that DGIF has recently released a guidance document concerning their agency's opinion concerning the best approach to deal with bird and bat issues related to the establishment of wind power in mountainous areas. This document had been provided to subcommittee members for their review.

Agenda Item: USFWS FACA Draft Guidelines
Discussion Leader: Judy Dunscomb
Discussion: Ms. Dunscomb referenced the USFWS FACA Draft Guidelines, and a link to these guidelines has been provided to subcommittee members. Subcommittee members should review the 5 tiers established in the guidelines.

Subcommittee took lunch break from 12:10 p.m. to 1:05 p.m.

Agenda Item: Discussion of pre-construction monitoring and determination of significant adverse impact
Discussion Leader: Judy Dunscomb
Discussion: The group began their discussion by reviewing the adverse impacts that were identified at the last meeting which included:

- Direct mortality to bats
- Any threatened and endangered species- including plants and animals (federal and state)
- Direct mortality to birds
- Natural Heritage resources
- Invasive species

In addition to these items, the group added one additional item- Other terrestrial wildlife.

An exercise was undertaken with the committee. As part of this exercise, the assumption was made that all wind facilities would produce significant impacts to bats. During this exercise the following mitigation options were identified as potential ways to mitigate significant impacts to bats caused by wind projects:

- Curtailment (x% cut in to m/s ratio)
- Habitat protection
- Funding of research related to reducing rate of mortality
- Turbine management
- Deterrents
- Retrofitting (off-site mitigation- retrofitting other turbines)

As the group discussed these options, Ms. Dunscomb reminded the subcommittee that the recommendations should consider that checklist criteria will likely be developed as part of the PBR and the recommendations should be able to be used with a checklist. A site specific review will not be performed for the Wind PBR project.

Issues that some members of the subcommittee want to see addressed include-

- Flexibility with the mitigation plan.
- Being able to use an economic model with a base level and a worst-case scenario to consider the economics of the site in conjunction with mitigation requirements.
- Changes to the cut in speed, increases and decreases to meet mitigation requirements
- Setting a maximum mortality limit, then allowing the operator to select mitigation as appropriate to meet the limit

- Having some type of limit to the amount of mitigation that industry must conduct as part of mitigation. Possibly a financial safety net. Ceasing operation of turbine is not an acceptable option.
- Avoiding a "Do loop" in whatever process is selected
- Flexibility to allow for more economically viable mitigation options that become available in the future to be used.

Agenda Item: Scheduling additional meetings

Discussion Leader: Judy Dunscomb
Discussion: Additional meetings of the subcommittee meeting are needed. The group selected the following dates for additional meetings: Tuesday September 15th, 9:30 a.m.; Tuesday October 6th, 9:30 a.m. The meeting locations have not been identified but will be announced in the near future. It is anticipated that the meetings will be held in the Richmond Area.

Action items:
John Daniel will research how the term "significant impacts" have been defined by examining case law and report this back to Carol Wampler for distribution to the subcommittee.

"Parking Lot" issues- Issues raised during the meeting for future consideration.

- What is a significant adverse impact?
- What is the # of bats allowed to be the upper mortality limit?
- What is the minimum # of bats allowed to be killed prior to mitigation being required?
- Establishment of an economic cost limit and what should it be
- How to credit mitigation options not directly related to mortality (habitat protection, funding research)
- Would the mortality limit be lowered in the future after the site has been approved? (to address drop in the bat population)

DEQ Wind Energy Regulatory Advisory Panel (Wind RAP)
Attachment B – Draft Notes for Landscape Subcommittee
August 27, 2009 Meeting

Location: DEQ Central Office, 2nd Floor Conference Room B
629 E. Main Street, Richmond, VA 23219

Start: 10:30 a.m.
End: 3:00 p.m.

Subcommittee Chair: Dr. Maria Papadakis, JMU (Co-chair)
Recorder: Gary Graham, DEQ

Subcommittee Members Present:
Stephen Versen, VDACS
Julie Langan, VDHR
Larry Land, VACO
Tony Watkinson, VMRC
Ronald Jenkins, DOF
Dan Holmes, PEC
Larry Jackson, APCO

Subcommittee Members Absent: Jonathan Miles (Co-chair)

Guests/Speakers: Jack Frye, DCR

Public Attendees: John Davy, DCR (alternate)
Roger Kirchen, VDHR (alternate)
Elizabeth Murphy, VMRC (alternate)

Agenda Item: Guidance Concerning Subcommittee Questions and Issues from Previous Meeting
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion:

1. Offshore and Coastal Issues are not the responsibility of this subcommittee.
2. Habitats of species are the responsibility of the Living Resources subcommittee. Ecosystems and land cover remain the responsibility of this subcommittee.
3. Focus question: "What resources do you want to protect, and how?"

Agenda Item: Agenda Review
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion:

1. Issues and concerns developed last meeting fall into 9 categories (see Issues for Subcommittee memo, attachment 1).
2. Question: Does development of wind energy on farms fall under an agricultural use act?
3. The degree to which local authority exercises control over land use and development of energy facilities varies. How a wind energy permit-by-rule (PBR) interacts with localities to protect land resources without stepping on local authority is an issue that the PBR must address.

Agenda Item: Important Landscape Categories
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion: (See Draft Discussion of Important Landscape Categories, attachment 2.) Important landscapes categories are:

1. Landscapes of "ecological" importance. These landscapes support habitats that sustain Virginia's native species.
2. Landscapes of "cultural" importance. These landscapes have historical significance, create a sense of place and identity for Virginians, and provide recreational opportunities for Virginians.

3. Landscapes of "scenic" importance. These landscapes provide additional opportunities to experience Virginia's natural resources from significant places and corridors.

Agenda Item: Communication Issues
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion: There is no federal or state authority that addresses potential communications interference from wind energy facilities.

Decision: Mitigation of the adverse impacts of wind energy on broadcast communications and local reception should be addressed in the PBR.

Agenda Item: Fragmentation Issues
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion:

1. Treatment of forest fragmentation in the PBR for wind energy facilities would treat these facilities differently than other energy facilities and might discourage development of wind resources.
2. Local authorities deal with changed use where local resources allow planning and zoning review. Rural areas where forest fragmentation may be an issue may have few resources to effectively deal with the issue.

Decision: Mitigation of the adverse impacts of fragmentation of forests should be addressed in the PBR.

Agenda Item: Additional Guidance
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion:

1. The subcommittee doesn't have to come to consensus. Multiple conclusions on any issue are fine.
2. Discussions should include everything that needs to be done. Conclusions that don't match existing law or regulation should not be discarded.

Agenda Item: Presentation by Jack Frye, DCR, Concerning Erosion Control and Storm Water Control
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion:

1. Regulations and laws concerning erosion control and storm water control are administered by both state and local authorities, with local authorities doing administration, plan review, inspection and enforcement.
2. Where local authorities lack resources, the use of contractors and third party inspectors with state and local review and approval have worked well to provide administration, plan review, inspection and enforcement.

Agenda Item: Action Items and Assignments
Discussion Leader: Dr. Maria Papadakis, JMU
Discussion:

1. Dr. Maria Papadakis, JMU:
    a. Investigate and report the potential adverse impacts of communications interference caused by wind energy facilities. Draft language for the PBR on this issue.
    b. Investigate and report the potential adverse impacts of Solid and Hazardous Waste generated by the construction and operation of wind energy facilities.
    c. Investigate and report the adverse impacts of ground transportation and traffic resulting from the construction and operation of wind energy facilities.
    d. Forward some other states' regulatory language for wind energy regulations to subcommittee attendees. Also forward AWEA siting guidelines to attendees.
2. Stephen Versen, VDACS:

   a. Investigate and report on the potential adverse impacts of constructing and operating a wind energy facility on agricultural land and what needs to be done to mitigate those impacts.
   b. Find out if development of wind energy on farms falls under an agricultural use act?
3. Julie Langan and Roger Kirchen, VDHR:
   a. Look at VDHR guidance and regulatory language for other vertical structures and see if it can be converted to language for the PBR.
   b. Look at VDHR guidance and regulatory language for transmission towers and see if it can be converted to language for the PBR.
4. Larry Land, VACO: Sharpen the lines on what aspects of wind energy facility regulation falls under local authority. Work with Maria to determine what needs to be covered by the PBR.
5. Ronald Jenkins, DOF: Develop a clear statement of the adverse impacts of wind energy facilities on forest conversion and forest fragmentation, and what should be done to mitigate those impacts.
6. Dan Holmes, PEC:
   a. Develop a clear statement of the adverse impacts of wind energy facilities on cultural, historic and scenic landscapes.
   b. Clarify the scope of SCC authority on wind energy resources and facilities.
7. Larry Jackson, APCO:
   a. Make sure the installation and maintenance of transmission lines is outside the purview of the wind energy PBR.
   b. Put together a clear description of what kinds of permits must be obtained by utilities already, and what mitigations are currently done as a result of constructing and operating those facilities.

Agenda Item: Question Referred Back to the Plenary Wind Energy Committee
Discussion Leader: Dr. Maria Papadakis, JMU
Question: What subcommittee is handling air quality issues associated with construction and operation of wind energy facilities?

August 26, 2009

To: DEQ Wind RAP, Landscape Subcommittee

From: Maria Papadakis (Alternate chair, substituting for Jon Miles)

RE: Issues for Subcommittee

Committee Members:

At our last meeting we generated a "bucket list" of potential issues for our committee to deal with. It was a helpful exercise to get the scope of people's concerns out and to sort and order those. These were summarized in the RAP minutes circulated a couple of weeks ago. After talking to the other committee chairs after our last meeting, we developed a better sense of which committees were working on what topics, and what—more precisely—our group needed to be working on.

This memo reviews our original list of potential issues, and narrows it down to those that we need to devote our energies to. As a brief summary, here is some guidance:

1. Coastal and offshore wind issues will all be handled by another group. We only need to focus on land/terrestrial resource concerns.

2. The Living Resources Committee will handle (species) habitats, endangered species, natural heritage resources, and so forth. Our group should therefore focus on living natural resources more broadly, such as land cover issues or ecosystem issues.

3. Nikki Rovner suggested that we use the question "What resources do you want to protect, and how?" as a guiding question. Her committee will be handling many of the procedural issues that we raised, and these are on their list. So we really need to focus on landscape-related resource concerns that need to be addressed by the permit-by-rule.

The remainder of this memo addresses the scope of resource issues that we might concern ourselves with. At this meeting we will need to decide which ones require special attention and regulatory language in the permit-by-rule (PBR). Our original "bucket list" is provided at the end of this memo. Below is a list of the issues we need to explore and address:

1. What is within local planning authority, and what needs to be addressed in the PBR.
2. Cultural and historic resources, including scenic viewsheds
3. Water Resources
    - Wetlands
    - Surface waters
    - Ground water
    - Stormwater
4. Communications interference
5. Solid and hazardous waste
6. Air quality impacts from construction

7. Ground transportation and traffic during construction
8. Vegetation/Land Cover
    - Forest fragmentation
    - Soil erosion
    - Disturbances to specific ecosystems/ecologies (e.g., high elevation hemlock forests)
9. Competing Land Use

As we also discussed at our last meeting, we need to be especially attentive to the temporal scale: for example, pre- and post construction as well as long term operations.

1. What is within local planning authority, and what needs to be addressed in the PBR.

Localities have considerable jurisdiction over wind energy installations through their land use planning authority and through the use of zoning and associated ordinances. Several localities in Virginia have **small wind ordinances,** but these are for wind energy systems much smaller than 100MW (usually less than 100 KW). Not all localities have wind ordinances, wind ordinances can differ widely, and not all localities actually have zoning.

Virginia has a handful of small wind ordinances, and several states have model wind ordinances for all scales of wind power. I reviewed Virginia's ordinances as well as the model ordinances and siting guidelines for Michigan, Pennsylvania, New York, and Massachusetts. Below is a list of siting issues that are or can be address in local zoning and ordinances. I have put asterisks by those items that most of the Virginia ordinances address:

- Setbacks**
- Minimum acreage**
- Maximum height**
- Noise**
- Blade clearance
- Shadow flicker
- Ice fall
- Visual appearance (color, finish, signage, advertising)
- Decommissioning (including land restoration)
- Impacts on cultural and historic landmarks
- Impacts on viewshed and scenic vistas
- Liabilities and sureties
- Compliance with building and electrical codes
- Lighting
- Signal emissions/communications interference
- Notification of the Blue Ridge Parkway (Rockbridge County requires this)
- Mechanical operations of the turbine
- Protections against unauthorized access
- Utility connections
- Requirements for site plan or landscape plan

- Requirements for ongoing maintenance and (mechanical) monitoring
- Requirements for technical documentation

Issue: To what extent should the PBR attempt to deal with the fact that localities have vastly different zoning and ordinance contexts? Should the PBR try to "level the playing field" for all citizens in the Commonwealth by specifying standards for any of the above? An alternative would be to develop a model ordinance for Virginia that localities could reference.

2. Cultural and historic resources, including scenic viewsheds

The local land use zoning and permitting process would typically address impacts on cultural and historic resources, including scenic vistas.

Issue: Should the PBR address cultural and historic resources and scenic viewsheds in addition to local land use ordinances? If so, what standards or requirements need to be established? Note that language on minimizing or mitigating impacts on such resources exists model ordinances from other states, as does requirements for viewshed analysis and visualizations.

3. Water Resources

- Wetlands
- Surface waters, including coldwater streams
- Ground water
- Stormwater

Protection of water resources is regulated by DCR, DEQ, and DGIF with some involvement from localities (e.g., for erosion and sedimentation plans).

Issue: What does the PBR need to do in addition to, or to complement, the existing regulations and regulatory mechanisms? Should any standards be specified?

4. Communications Interference

The broadcast spectrum and communications airwaves are a natural resource. The local land use zoning and permitting process would typically address communications interference, although it would not necessarily do so.

Issue: Should the PBR address communications interference? If so, what standards or requirements need to be established? Note that language on minimizing or mitigating impacts on communications exists in model ordinances from other states.

5. Solid and hazardous waste

DEQ regulates solid and hazardous wastes. Solid waste is generated during the construction of larger wind energy installations, and some hazardous waste could be generated through spills and leakages of lubricants and so forth.

Issue: What does the PBR need to do in addition to, or to complement, the existing regulations and regulatory mechanisms? Should any standards be specified?

6. Air quality impacts from construction

Negative air quality impacts from wind energy installations typically arise during construction through equipment exhaust and so forth. Air quality is regulated by the DEQ. Note that air quality is specifically addressed in the statutory language. It isn't clear which RAP subcommittee is supposed to deal with this.

> ***Issue: What does the PBR need to do in addition to, or to complement, the existing regulations and regulatory mechanisms? Should any standards be specified?***

7. Ground transportation and traffic during construction

Road access, rights of way, road capacity, etc. would typically be handled locally and/or by VDOT.

> ***Issue: To what extent should the PBR address transportation and traffic?***

8. Vegetation/Land Cover

Environmental impacts to vegetation and land cover relate to the consequences of disturbing existing land cover (this is different and distinct from land use). Typical concerns include:

- Forest fragmentation
- Soil erosion
- Surface water impacts
- Ecological disturbances to specific ecosystems/ecologies

Some of these issues are currently regulated (soil erosion, surface water) others are not (forest fragmentation, ecological disturbance in areas that have not been designated as critical or protected habitat).

> ***Issue: What does the PBR need to do in addition to, or to complement, the existing regulations and regulatory mechanisms? Should any standards be specified? What should it do regarding environmental impacts for unregulated issues?***

9. Competing Land Uses

Installation of wind turbines could potentially interfere with existing land uses, either at the site itself or in near proximity. Examples include recreational areas and agricultural production.

> ***Issue: What does the PBR need to do to address potentially competing land uses, such as farming and recreation? Note that language addressing these factors is included in model ordinances for other states or in other states' guidance documents.***

The original list

To refresh your memories, here is the original "bucket list" that we generated at our last meeting:

Substantive Environmental Issues:

- Viewsheds
- Water quality impacts
- Species
- Forest fragmentation and associated impacts
- Potential land use conflicts/changing uses
- Habitat (or land cover) types
- Impacts by timeframe (construction, operation, and decommissioning):
    - Site and facility construction
    - Road construction/maintenance
    - Erosion and sedimentation
    - Pads
    - Interconnection
    - Site access
    - Topography factors
    - Land-based vs. offshore impacts
    - Cumulative impacts

Substantive Legal/Process Issues:

- Public safety/Zoning
    - Tower fall, flicker, ice throw, noise, nuisance
- Monitoring (pre-/post-)
- Local vs. State vs. Federal Authority
    - Compliance plan/zoning/L.U.
    - Local permitting conditions for special or conditional use
    - Provisions for counties with no zoning requirements or review assets
    - Legal authority over coastal zones
    - Allowing localities courtesy comment in coastal zone sites
    - Who does public meetings for coastal zone sitings
    - How federal permitting interfaces with state permitting
    - Mitigation associated fees
    - Impact on cultural or historic assets
    - FAA requirements
    - Military land or coastal use restrictions
    - Interference with shipping lanes or fishing areas
    - Time period requirements for permitting reviews and interagency consultation
    - Easement issues for facilities under 138 Kv
- Regulation end-running (e.g. breaking up a project into smaller projects to avoid requirements)

Draft Discussion of Important Landscape Categories

A variety of state and federal programs, along with programs managed by private organizations, identify or recognize major types of landscapes that deserve priority status for conservation. Often landscapes are sorted into groups based on discrete values such as wildlife habitat, historic/cultural significance, agricultural value, or significant scenic attributes.

It is, however, recognized that landscapes and their values are not so easily sorted. For example, landscapes important to wildlife protection or working landscapes related to the culture of an area may also be scenic landscapes important to the protection of a view shed or recreational corridor. Separating one type of landscape from another can be difficult. The history of human use and development also plays a role in landscape conservation/definition.

The long and intimate relationship between people and the land guarantees that virtually any large landscape within Virginia will potentially represent multiple values. Thus, the following categories for recognizing landscapes, are at best, a first attempt, to described in general those that could be considered in developing a landscape measure for permitting wind energy facilities.

Landscapes of Ecological Importance

Landscapes recognized for high-value habitat have sufficient size and ecological functions to support sustainable populations of Virginia's native species. They include:

- Forested areas of contiguous natural habitat with significant interior size, transition areas, and buffers; these are either significant, continuous areas of forest or a collection of interrelated forests that are largely not impacted by other forms of land use.
- Corridors with natural land cover that link protected, high-ranking habitats; corridors may follow prominent features such as streams, ridges, valleys or waterfronts.
- Large areas of aquatic bottoms, mud flats, grass beds, oyster reefs, dunes and beaches, tidal wetlands (especially those connected to undeveloped uplands), and sanctuaries for sustainable reproduction of aquatic life.
- Terrestrial or aquatic areas that have scientific importance because they host biological and geological features that are unique, rare, or threatened; they contain rare species, rare habitat types, or unique natural communities.

- Landscapes recognized for watershed values that provide regionally meaningful services such as flood control, stormwater management, base flow, carbon sinks, and water quality treatment.

Landscapes of ecological importance are sometimes referred to as “green infrastructure” by virtue of the crucial ecosystem services they provide for human communities and native wildlife.

Landscapes of Cultural Importance

Many landscapes are recognized for their cultural value—the ways in which they reinforce human relationships to place over time, creating a true sense of place and identity unique to an area or region in Virginia. Cultural landscapes reflect historic significance and day-to-day working relationships with land and water; they also include places specifically recognized for their ability to provide important and direct personal experiences with the Commonwealth’s resources and stories. Cultural landscapes include:

- Places associated with historically significant events, people, and ideals.
- Archaeological sites with the potential to yield information through investigation.
- Specific sites of unique cultural importance to indigenous peoples.
- Places that characterize a significant way of life; they have been important in the culture and traditions of the region’s peoples through time.
- Working landscapes that reflect traditional uses of the region’s lands and waters, producing marketable goods and services such as forest products, agricultural goods, and fish. These include:
    - Relatively unfragmented patches of productive, dense forest land supporting economically viable timber management; forest management practices avoid detrimental effects on environmentally sensitive lands, including wetlands, riparian areas, steep slopes, and unique natural heritage resources.
    - Historically productive farm lands with prime agricultural soils that not only contribute to the economy and support our way of life, but create and reflect the rural character for which the region is known.
    - Traditional fishing areas and communities, including docks and facilities that support the industry and habitat areas that support commercial and sport species at all life-stages (such as coastal wetlands, streams, estuaries, and spawning areas).

Landscapes of Scenic Importance

These are landscapes that are recognized for their visual importance as seen from areas of scenic or recreational value. This would include both the near and far views as seen from recognized resources such as Virginia's scenic byways, scenic rivers, the Appalachian Trail, National and State Parks, and designated historic/cultural sites. They may be described as:

- Places and routes that allow people to experience the state's natural/cultural resources, stories, and the broader landscape through direct, personal interaction in the outdoors; across the board, a significant contributor to these places is the visual experience of the surrounding ecological and cultural values. These places include:
  - A variety of routes, trails and corridors—on both land and water—that have been recognized as providing significant pathways through the State's cultural and natural history.
  - Specific places designated for providing direct recreational access to the significant resources for recreational activity.
  - Designated historic structures/sites the view from which is important to their integrity.

A number of programs exist for recognizing important landscapes whether these be at the local, state or federal level. It would seem important that these landscapes and the resource they are associated with conserving be identified as a part of any permitting process. A view shed analysis could then be done using one of the available techniques to determine how the new project would impact the critical areas of the landscape and what could/should be done to reduce those impacts.

1. East Tennessee Natural Gas, LLC will provide at least one full-time DCR approved inspector for the project. The inspector will provide inspection oversight of the project per the DCR approved scope of work for the inspection services. The scope of work shall include the provisions that inspections will by conducted following the initial installation of erosion and sediment control measures, at least once every 7-day period, within 24 hours following a rainfall event and at the completion of the project to insure that backfilling, seeding and mulching has been completed. In addition, inspection reports will be provided to DCR staff in our Central and Abingdon offices.

{Company Name} will provide at least one full-time DCR approved inspector for the project. The inspector will provide inspection oversight of the project for compliance with the Virginia Erosion and Sediment Control Law and Regulations. The inspector will hold a certificate of competence from the Virginia Soil and Water Conservation Board in the area of project inspection or combined administrator. The DCR approved inspector will conduct erosion and sediment control inspection following the initial installation of erosion and sediment control measures, at least once every 7-day period, within 24 hours following a rainfall event and at the completion of the project to insure proper stabilization of the site. In addition, inspection reports will be provided to the local government and copied to DCR staff in our Central and appropriate DCR Regional offices.

DEQ Wind Energy Regulatory Advisory Panel (Wind RAP)
Attachment C – Draft Notes for General Subcommittee
August 27, 2009 Meeting

Location: **DEQ Central Office, 2nd Floor Conference Room**
629 E. Main Street, Richmond, VA 23219

Start: 10:50 A.M.
End: 3:00 P.M.

Subcommittee Chair: Nikki Rovner, Deputy Secretary of Natural Resources
Recorder: Bill Norris, DEQ

Subcommittee Members Present: **James Golden, DEQ**
Ken Jurman, DMME
Jayme Hill, Sierra Club
Mary Elfner, Audubon
Don Giecek, Invenergy - Alternate for John Daniel
Theo de Wolff, Independent Developer

Subcommittee Members Absent: **John Daniel, Independent Developer**

Guests/Speakers: N/A

Public Attendees: **David Phemister, TNC**
Hank Seltzer, BP Wind Energy

Subcommittee Chair, Nikki Rovner, welcomed members of the subcommittee to the meeting and noted that everyone should have a list of the "Draft Issues for General Subcommittee, Wind RAP." She noted that her preference was to try to get the work of the subcommittee completed with just two meetings of the subcommittee instead having to schedule an additional meeting. One way to accomplish this would be to make sure that assignments are made prior to the end of the meeting and that all members of the subcommittee agree to complete their "homework assignments" and distribute the information in time for review and consideration prior to the next meeting.

Agenda Item: Applicability Questions - Should there be an exemption for very very small facilities with de minimis impacts?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- Encourage the use of a de minimis exception for "community-scale projects."
- De minimis exceptions have been used in other states.
- A small project should not have the burden to go through the whole process.
- A determination of what a "de minimis" limit should be is a difficult one.
- There is some guidance from the federal level - FERC (The Federal Energy Regulatory Commission) under their special "Interconnection Rules" for small projects that create an accelerated process so that they are not burdened with the regular process that costs $250,000 and up to two years.
- FERC's "de minimis" limit is 20 mega watts or smaller.
- SCC has recently adopted a modified version of the FERC requirements to set limits for projects up to 500 kilo watts, projects up to 2 mega watts and projects up to 20 mega watts. The requirements then jump to 50 mega watt projects. The question is what happens to projects that are above 20 mega watts and less than 50 mega watts?

- FERC's requirements address up to 2 mega watts; then up to 20 mega watts; anything above 20 mega watts is classified as a big generator.
- A question regarding the consideration of "cumulative impacts" of a number of "de minimis" threshold projects in the same area was raised.
- Could there be a scale for setting of requirements? Projects up to a certain limit would have to do these items, while projects are a higher level would have to do these additional items.
- Cumulative effect is more of a theoretical concept then a practical one. Energy projects have to deal with a grid. A grid can only take so many projects. Community projects interconnect through distribution lines. The limiting factor for energy generating projects is the capacity of the available distribution lines.
- The net-metering threshold is 500 kilowatts for non-residential and 10 kilowatts for residential.
- Under the SCC rules there is a 1% net-metering limit for renewable energy.
- A threshold of 500 kilowatts might be a good starting point, but the question is what happens above 500. Should a project that is 501 kilowatts have the same requirements as one that is 100 megawatts?
- TNC was the only environmental group that didn't specifically raise objections to the 100 megawatt inclusion in the bill, and the use of that limit as "small." Evidence shows that the issues are more related to location than size of a project and how that project is operated in terms of impacts to wildlife. In relation to sites, all things are not equal. All their basic concerns would be the same for a 10 megawatt project as they are for a 100 megawatt project. There is nothing in the legislation which speaks to a de minimis exception. There is nothing in the legislation that speaks to a different set of permit conditions on some sort of sliding scale for projects. It says that projects of less than 100 megawatts shall be permitted using this "permit-by-rule" approach, if DEQ determines that a PBR is necessary. A de minimis exception makes sense, but anything close to a megawatt is not a de minimis project. The idea that a 5 megawatt project is a de minimis exception and would not have to go through permitting is not acceptable.
- A question was raised regarding the use of the net-metering threshold of 500 kilowatt. It was suggested that the net-metering threshold should be off the table for discussion since it is already permitted and already allowed by local zoning. Why should we impose something on them that is not already there? Net-metering is an indication that it is primarily intended to serve a facility. It was suggested that you could also make the case for larger facilities too. An example of the NASA facility at Wallops Island was given. They are looking at installing upwards of 2 megawatt turbines to be hooked behind their meters specifically for their on-site use. Even though that exceeds the legal metering threshold, the local utility there has agreed to approve it and treat it as a net-metering system.
- Interconnection issues are not what this legislation looked at.
- The legislation primarily looks at taking the environmental review components away from the SCC and put it with DEQ in this type of permit.
- It was suggested that there was not very much research available on the impact on wildlife of smaller units. Might want to take a look at what research, if any, is available on this topic.
- There are two ways to deal with this issue: One would be to draft the language to set 500 megawatts as a de minimis exception level, but that we are open to other suggestions or TWO we can let the other subcommittees know and ask for their input on what it should be.
- It was suggested that requiring this type of permit on a community scale project might make the project infeasible. Comparing a 1 megawatt project's impacts with a 100 megawatt project's impacts is not a fair comparison.
- Wind power has impacts. It is not 100% clean. Power is needed in Virginia. All types of power generation have impacts, but we don't want to discriminate. A report by the New York State Energy Research and Development Association commissioned a study that looked at various types of power generation methods (published in April) was referenced. Wind power has impacts but comes out pretty positive. The question is do we want wind energy power here or not?
- There should be a de minimis exception. There could be two possible thresholds, one of 500 kilowatt and one of 2 megawatt.

- It was noted that a 500 kilowatt was acceptable. But there might be another way to look at this. In looking at the criteria identified in the statute, there are 14 criteria/conditions that are identified for wind power projects. Ten of them don't need any discussion; there are only a couple that talk about environmental impact. Under those criteria there should be a step process. It is important that any wind project needs to do a Phase I assessment. In the criteria where there are more issues that can't be crossed off, if a project comes in and does a Phase I and comes in clean then there is no need for further studies.
- OK with a 500 kilowatt de minimis, but there should be consideration given to some tiers above that for smaller projects with regard to which of the criteria they have to address.
- It was suggested that there were some model ordinances in North Carolina that might be worth looking at that does address some of these same threshold considerations.

CONSENSUS DECISION: Recommend a de minimis exception of 500 kilowatt.

- Zero impact of anything is never going to happen. The agency that issues environmental permits is not reducing pollution; it is permitting additional pollution within certain constraint and with certain mitigation actions be required.
- The use of Tiers will be added to the end of the applicability questions.

Agenda Item: What is the mechanism for DEQ's determination that a PBR is necessary for a particular kind of project?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- Could be a letter from the director.
- It is given that the agency is going through the process to develop a PBR.
- DEQ has the authority to determine whether a PBR is necessary and what is or is not necessary to include.
- Letter could be sent to the RAP saying that a PBR is necessary and that a regulation is being developed and that there should be an exception for very small projects.
- A question was raised as to why a letter was needed? DPB asked this question as to what mechanism would be used for DEQ's determination. A letter to DPB would not be a problem and is more of an administrative step in the regulation development process.

Agenda Item: Will developers of small wind energy projects have the option, after this regulation is adopted, to go through the full SCC project instead of obtaining coverage under the PBR?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- The Attorney General's Office has said that once the regulations are developed and finalized that small wind energy projects will not have the option of going through the full SCC project.
- The regulations would normally say that you shall obtain coverage under this process.
- There was disagreement among the committee members regarding the answer to this question.
- It was noted that if the AG's Office has said "no" then DEQ is done at that point since the AG is the department's legal counsel. It was noted that the AG's office has not issued an official opinion yet, so more discussion is needed to answer this question.

DEQ Wind Energy Regulatory Advisory Panel (Wind RAP)
Attachment C – Draft Notes for General Subcommittee
August 27, 2009 Meeting

Agenda Item: Should there be tiers?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- The group has agreed that there should be a de minimis exception that level should be 500 kilowatts where the applicant doesn't have to do anything related to this regulation. There have been some additional thoughts that there should be other thresholds or tiers where the applicant would have to do some items but not all of them. Small scale projects would be unlikely to move forward if they had to meet all of the listed 14 conditions.
- The TNC understands the perspective and motivation behind the idea of a tiered approach and all things being equal won't object to the concept. As a background that's why paragraph #7 and #8 in the statute (largely drafted by TNC) are there. That is why the term "where relevant" is used. The statute is not just for wind energy but address other forms of renewable energy. The intent is not to have industry go through unnecessary or overly expensive steps. The question as to whether there should be a tiered approach is more of a question that should be addressed by the other subcommittees. If a project of small size based on a standard that some of the other groups come up with, could have significant adverse impacts and determining what those are would be cost prohibitive to the developer. The developer either finds a way to make the necessary determination or it is one of those projects that have a fatal flaw and the developer should move on to another site. Not opposed to exploring the idea of tiers but the determination as to whether tiers are appropriate is more of a question for the other technical groups to decide.
- A suggestion was made that this group should kick back a suggestion to the other subcommittees that we say under item #7 that we say that the term "where relevant" will be defined on a tiered basis. The tiers could be 5 megawatts or less; 5 megawatts to 20 megawatts; and 20 megawatts and higher. The term "where relevant" is a very broad term. The items #1 through #6 represent a Phase I category and if under #6 an analysis of potential environmental impacts that it is determined that it is a clean site that the project moves on and doesn't have to address the remaining items in the statute. Phase I normally means that the applicant consults with all the agencies and gets their input to the project.
- There is a question of jurisdiction, a plant that wanted to hook behind their meters for certain size (under 500 kilowatts) projects wouldn't need to go through the SCC to get a certificate. Why would we want to impose requirements on a project that would not normally go through the SCC process?
- A project that would never have gone through the SCC should not be part of the DEQ process. The DEQ PBR process is supposed to supersede the SCC requirements for environmental review.
- There are three different rationales related to the use of tiers: (1) The issue of impacts: This is one that this subcommittee is not able to determine, but is there a size under which there can be expected to be unlikely to be significant adverse impacts. (2) The issue of regulatory burden: At what level (studies – Items #7 & #8) would the regulatory burden/requirements make smaller projects not able to go ahead? (3) The issue of imposing additional regulations: Should DEQ regulations be imposed on a project that would never have been regulated under the current SCC requirements?
- As noted in Item #7 of the statute both “beneficial and adverse impacts” should be taken into consideration in the evaluation of a project.
- The question of population impacts has not been considered in this discussion of possible adverse impacts.
- The idea of tiers is worth considering but stuck with what those should be. Need more information on impacts of different sizes and scales of projects.
- Possible expense of doing the required studies might be insurmountable for projects of a certain size. (20 megawatts?)

Agenda Item: Documents that must be submitted to obtain coverage under the PBR. What requirements should be imposed for the design and operation of the facility and the site plan?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- The statute specifies what studies and documents must be submitted: #8 – Mitigation Plan; #9 – Engineering certification; #10 – Operating Plan; #11 – Detailed site plan; and, #12 – Environmental Permit Certification.
- Standards for design are referenced in #9.
- What is the meaning of "detailed site plan" as required under #11? A site plan is a physical construction layout not an environmental plan.
- Recommend that a good starting point would be to consider what is required for a "site plan" under DCR's Stormwater Regulations.
- Links to requirements for other states had been provided to the group but the list/links need to be further refined so that the specific requirements related to project design, site plans, and operating plans can be more readily accessed.
- The state of Vermont might have requirements for a site analysis plan that might be useful.
- The American Wind Energy Association was suggested as a possible source of information about applicable standards.

Agenda Item: What environmental permits might a terrestrial wind facility be required to obtain?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- Use the document prepared by DEQ (Mike Murphy) on the list of environmental regulations and permitting programs. There are also requirements that are on the SCC list and on the materials provided by DCR.
- DEQ could develop and provide a type of user's guide that could be available on the web page. Some kind of public outreach could be done to clarify these other possible permitting requirements that a Wind Energy Project might also need to consider.
- A flow chart of the types of permitting requirements might be useful. Also a flow chart of the steps needed for this PBR for Wind Energy Projects would be useful. It was suggested that the current requirements identified in the SCC requirements would be a good starting point to identifying every potential regulation that might apply to a wind energy project.
- This could be handled as a registration form as a kind of check off of which ones have been completed or are not applicable.
- The concern is what is the expectation for action and review on the part of the Department.
- There could be a disclaimer that the listing of other requirements is strictly an information item and that no follow-up is needed or required.

Agenda Item: Does the air quality analysis required on lines 57-58 require explanation?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- Item #6 requiring an analysis of potential environmental impacts on attainment of national ambient air quality standards doesn't really apply to wind energy. This statute deals with more than just wind energy. This requirement should just be put in the regulations just the way it is.

Agenda Item: Should a closure or decommissioning plan be required?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- The applicant would need to submit a closure plan that would indicate how the site would be returned to pre-construction hydrologic conditions.
- This requirement would have to take into consideration "leases with landowners" and "real" plans for planned future use of the site. If plans for future use aren't immediate, then the site would have to be returned to its pre-construction state. Look at surface mining regulations for an example of this kind of requirement.
- At the very least, towers and turbines would have to be removed and site restored to a condition to eliminate safety and hazard risks.
- The question of local ordinances requirements and restrictions and local land use regulations was raised as an item that should be considered.
- A question related to financial assurance was also raised. DEQ regulations usually contain a section or references to financial assurance requirements as part of the regulations.

Agenda Item: What Determination of Coverage, Length of Coverage

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- What is the term of the permit? Waste permits-by-rule don't have terms. Additional actions can be taken if needed should a problem or change arise or a new finding be discovered. There would be a "re-opener" clause that would allow the permit to be reopened.
- Current DEQ individual permits run for 5 or 10 or 15 years or have no expiration date. A lot of the permitting terms are drawn from federal requirements.
- For Board Permits public participation requirements are revisited periodically by DEQ. By contrast, this would be an Agency Permit.
- The department MAY reopen a permit if changing science requires a change in the Permit by Rule.
- There can also be a grandfathering concept put in the regulation.
- There needs to be a term or a length or the ability to revisit conditions of the permit should conditions or changing science warrant.
- A PBR should have no expiration date. Changes that take place in conditions or the "state of the science" could result in changes to the PBR requirements and the reissuance of the PBR regulation as needed.
- Information on potential impacts will change over time. Technological improvements will be made that could result in changes to the operation of the project.
- The agency can make changes in a plan within a permit administratively.
- An unlimited term is acceptable at this point in time.
- Length of time to determine coverage (lines 116 – 120) – regarding sufficiency and the length of time involved. If we were to go down that road, we would need to spell out the ramifications of missing those deadlines. In the VWP there is a default that if no response from the agency is received, then the project goes ahead. There should be some notification to the public requirement. There should not be a default mechanism for this PBR. No sooner than 30 but no longer than 90 was suggested. 30 days would be appropriate to determine that either a project is covered under the PBR or more information is needed to make that determination.

Agenda Item: What would trigger a modification?

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- Need to determine what would trigger a modification of a permit. If you are adding additional capacity or if you are resulting in additional potential impacts to resources then a modification would be required. Physical changes to the site and changes in the method of operation would require a modification of the permit, i.e., adding capacity and changing the foot print of the site. Like-to-like changes or improvements don't trigger a modification in the air program.
- Changes in method of operation would trigger a permit action. Potential impacts on wildlife resources.
- Adding capacity and changing the foot print of the operation could be reasons to revisit the permit. If there is a need to deviate from the approved mitigation plan then there might be a need to revisit the permit.
- This projectstill have to get the SCC certificate they just would not have to go through the environmental components of the current SCC process.
- Permit modifications doesn't apply to a PBR. Just required updated site plans, updated mitigation plans, etc., not a whole new permitting process.
- If there is an increase in capacity then someone needs to be made aware of this change. Just a notification requirement could be included to address this.
- Paragraph #11 was referenced.
- Analysis of environmental impacts would be minimum requirement for modifications to operations, etc. A notification and reporting requirement is included in other DEQ regulations. There will need to be a self-reporting requirement.
- Write it the way that other PBRs are written.

Agenda Item: Inspection/Monitoring

Discussion Leader: Nikki Rovner
Discussion: Items discussed by the RAP Subcommittee included the following:

- The current schedule for PBRs is annual. There are a lot that run 5 years. This is an Agency Permit not a Board permit so the conditions can be different.
- All complaints are investigated to some level.
- There needs to be some minimal frequency of inspections.
- Significant adverse impacts should be reported.
- Inspection schedules are not included or specified in other DEQ regulations. An assumption would need to be made to be able to determine the required fee to support the inspections.

SUBCOMMITTEE ASSIGNMENTS:

ASSIGNMENT: Don Giecek - Model ordinance for North Carolina

ASSIGNMENT: Nikki Rovner – Refinement of "other state" information.

ASSIGNMENT: Jayme Hill - Vermont reference for decommissioning requirements.

ASSIGNMENT: Jayme Hill and/or Theo de Woeff - American Wind Energy Association standards for site plans/operating plans/design.

ASSIGNMENT: James Golden (DEQ) - Flow chart that would identify the list of environmental permits that might be required for a wind energy project.

ASSIGNMENT: James Golden (DEQ) - Examples of "closure" and "decommissioning" language from existing DEQ regulations to the group for review.

ASSIGNMENT: Nikki Rovner - Larry Land regarding local government requirements regarding financial assurance requirements.

ASSIGNMENT: James Golden (DEQ) - Current time requirements and inspection requirements for other PBRs.

ASSIGNMENT: David Phemister - Propose a restoration standard/plan.

ASSIGNMENT: Nikki Rovner and DEQ - Drafting.

ASSIGNMENT: Ken Jurman and Mary Elfner – Terms to be defined.

ASSIGNMENT: Subcommittee – What questions should be addressed to the SCC and the Enforcement Director.

TIMELINE:

- **Research items within the next two weeks.**
- **Flow chart and regulatory language before next meeting.**